What is claimed is:

1. A magnetron, in which both a strap-engaging concave portion for joining a strap ring and a strap-inserting concave portion for inserting therethrough the strap ring in a non-contact manner are provided on an upper edge and a lower edge of each of anode vanes in such a manner that the strap-engaging concave portion and the strap-inserting concave portion are positionally shifted from each other along a radial direction of an anode tubular body; the anode vanes arranged along a circumferential direction are electrically connected to each other every one vane by any one of a small-diameter strap ring and a large-diameter strap ring coaxially arranged with respect to a center axis of the anode tubular body, is joined to the strap-engaging concave portion; and a microwave radiating antenna passing through an output-sided magnetic piece in a non-contact manner is joined to one anode vane among the plural anode vanes,

wherein, in such a case that a radial dimension of an outer circumference of the small-diameter strap ring is "Rs1"; a radial dimension of an inner circumference of the large-diameter strap ring is "Rs2"; a radius of a circumference inscribed to tip portions of the anode vanes is "Ra"; and a radius of a central flat portion of the magnetic piece located in the vicinity of each of the anode vanes is "Rp", the values of Ra, Rs1, Rs2, Rp are set in such a manner that the following formulae (1) and (2) can be established:

$$1.85Ra \leqq (Rs1+Rs2)/2 \leqq 1.96Ra \quad \cdots (1)$$

$$Rs1 < Rp < Rs2 \quad \cdots (2).$$

2. A magnetron according to claim 1 wherein a depth dimension of the strap-engaging concave portions provided on the upper/lower edges of each of the anode vanes is set in such a manner that the strap rings engaged with the strap-engaging concave portions are sunk inwardly with respect to the upper/lower edges of each of the anode vanes.

3. A magnetron according to claim 1 wherein an interval along an axial direction between an output-sided end hat provided on one edge of a cathode and the upper edge of each of the anode vanes is set to 0.2 to 0.4 mm.